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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,838	03/21/2002	Ferdinand Piech	4598-48PUS	2174

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EXAMINER

CAMPBELL, KELLY E

ART UNIT

PAPER NUMBER

3618

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,838

Applicant(s)

PIECH ET AL.

Examiner

Kelly E Campbell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/21/02.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 15, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 16-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The preliminary amendment filed 3121102 is acknowledged.

Claims 1-13 have been cancelled and claims 14-26 have been added.

Claim Rejections - 35 USC § 903

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mezger (DE 4029058) in view of Mezger (US 5,094,203).

Mezger (DE 4029058) teaches an arrangement for a vehicle drive unit including:

a transmission (19);

a crankshaft (14) mounted in an engine housing so as to lie in a longitudinal direction of the vehicle, see Figure 1;

a parallel auxiliary shaft (13) driven by the crankshaft (14) for transmitting power to the transmission (19);

input drive shafts (20) for vehicle wheels;

and an output drive shaft (18) in operative connection with the transmission (19) and the

input drive shafts (20) for driving the vehicle wheels, see Abstract.

Mezger (DE 4029058) does not disclose an engine including cylinders arranged in rows at an angle to one another.

Mezger (US,5,094,203) teaches an arrangement for an internal combustion engine (E), the engine (E) having cylinders arranged in at least two cylinder rows (1 or 2) at an angle to one another, see Figure 1 and Column 2, lines 4-6, one of the rows (1 or 2) being arranged to lie at least substantially horizontally.

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the drive train configuration of the racing car taught by Mezger (DE 4029058A1) to include the specific configuration of the racing car engine disclosed by Mezger (US 5,094,203) having cylinders arranged at an angle in order to contribute to a uniform distribution of weight of the engine.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mezger (DE 4029058) in view of Mezger (US 5,094,203) as applied to claim 14 above and further in view of Zink (DE 3837256 C1).

Mezger (DE 4029058) in view of Mezger (US 5,094,203) discloses all aspects of the claimed invention as discussed above for claim 14, except the crankshaft plane being offset from the auxiliary shaft plane.

Zink (DE 3837256 C1) teaches a crankshaft (13) and auxiliary shaft (15) arranged in accommodating, vertically running planes at a distance from one another that an auxiliary shaft plane (15) which accommodates the auxiliary shaft is identical to a vehicle longitudinal center plane, see Figure 1, and a crankshaft plane which

accommodates the crankshaft (13) is arranged offset at a distance from the auxiliary shaft plane to one side, see Figure 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the racecar drive train arrangement taught by Mezger (DE 4029058) in view of Mezger (US 5,094,203) to include offset planes for the crankshaft and auxiliary shaft as disclosed by Zink, to ensure adequate rigidity of connection and allow the engine to be fitted at a greater angle of inclination in the vehicle, as disclosed in the abstract.

Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mezger (DE 4029058) in view of Mezger (US 5,094,203) as applied to claim 14 above, and further in view of Kraus (US 2,915,133).

Mezger (DE 4029058) in view of Mezger (US 5,094,203) discloses all aspects of the claimed invention as discussed above for claim 14, except the input drive shafts being arranged so that an angle arranged between the input drive shafts and the vehicle longitudinal center plane, is less than 90 degrees.

Kraus discloses a vehicle arrangement including a longitudinal center plane of the vehicle being indicated by a shaft (24a), see Column 2, lines 58-66;

And input drive shafts (37) for vehicle wheels, being disposed so that an angle arranged between the input drive shafts and the vehicle longitudinal center plane, is less than 90 degrees, see Figure 2, as seen from the front view of the vehicle, Figure 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the drive shaft arrangement of the vehicle taught by Mezger (DE 4029058) in view of Mezger (US 5,094,203), to include an angled

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arrangement of the drive shaft and longitudinal center plane in order to suitably distribute the essential elements of the vehicle and uniformly distribute weight for improved performance of a racing vehicle.

Allowable Subject Matter

Claims 16-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose a an installation arrangement for a vehicle drive unit including cylinders arranged in rows at an angle, and further including an engine housing has a rear wall, with an opening and the output drive shaft articulated on the rear wall at the opening, such that the opening having a center point arranged at a distance to one side of the vehicle longitudinal center plane such that a crankshaft plane lies between the center point and the auxiliary shaft plane. A combination of these and other limitations have not been reasonably founding the prior art.


Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kadokura et al (US 5,205,373) teaches a vehicle power train configuration. Okui (EP 411319 A2) teaches an internal combustion engine for automotive vehicle drive train system. Droeschel (DE 2904066A) teaches an IC engine layout using angularly mounted cylinders.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly E Campbell whose telephone number is (703) 605-4264. The examiner can normally be reached on 9:00-5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Johnson can be reached on (703) 308-0885. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.


KEC
July 24, 2003


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7/28/03